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EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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EDITORIAL NOTES.

The Contagious Diseases of Animals are of greater importance to the Stock-owners of this country than all the others put together. Our report for the week ending August 17th contains more than one interesting and instructive fact. There were 15 fresh outbreaks of pleuro-pneumonia in the week—8 in Scotland and 7 in England. Now there are not so many cattle in the northern half of the kingdom as in the southern, and the question naturally arises —Why the larger number in Scotland?

Of Glanders and Farcy there were reported 38 fresh outbreaks. Of these no less than 35 occurred in London. This is no extraordinary proportion; week after week the same thing is published showing clearly that London is the great hot-bed of the disease. When a plague becomes widely prevalent it is only stamped out at great expense and after much trouble and excitement. When it is localised in two or three places repressive measures are more easily applied and more economically effective. Surely it is worth while to try and get rid of a disease that kills annually more horses than are required to re-mount the whole British Army.

It is satisfactory to note that not a single case of Rabies is reported during the week as having been seen in England or Scotland. Very different is the return from Ireland, which includes 9 dogs and 2 cattle.

After all that has been written on Hydrophobia and Rabies it is positively disheartening to read some of the articles in the daily papers. Only a few days since we saw a statement, made by a well-known member of the profession, to the effect that "there could be no doubt that rabies in some cases arose as the result of some other cause than contagion." Then there was a letter from a lady pointing out the value of muzzling as her dog had been taken into the Park for a walk, and on the way home "suddenly went mad," and was incontinently knocked on the head by a policeman. It is almost a certainty that the poor dog only had a fit. Fits always come on suddenly—rabies never does—at anyrate the exceptions are so rare as only to prove the rule.

All professional men know the difficulty of forming any conclusion as to the existence of rabies from a *post-mortem* examination. The Local Authorities of Bromley do not recognise the difficulty, but employ their Sanitary Inspector to make *post-mortems*. We have no knowledge of this official's skill and training, but as the selection of such men sometimes includes shoe-makers, retired army sergeants, and unsuccessful school teachers, we have no guarantee of his fitness. The newspaper report says "The Police Sanitary Inspector performed a *post-mortem* examination on the dog killed by the coachman, and decided that it had undoubtedly suffered from rabies." What better evidence does a Local Authority want?

Perhaps however the most remarkable pronouncement on dogs was the advice tendered by a London Magistrate to a man who complained that his muzzled dog had been attacked and bitten by an unmuzzled dog—"he advised the applicant to have his dog killed and granted a summons against the owner of the unmuzzled dog."

This is no case of an unknown dog whose condition cannot be determined. It occurs in London where a Special Order is in force and where of course the best advice is always at the service of the Authories. It really is a little hard on dog-owners if every poor dog that "goes suddenly mad" (*i.e.*, has a fit) is at once killed by a constable; it does seem like adding insult to injury, when your muzzled dog has been unfairly attacked by an unmuzzled one to be advised to "have it killed"; and it does not inspire confidence to find that local authorities decide the nature of disease on the evidence discovered by a policeman's *post-mortem* examination.

The last meeting of the Lincolnshire Veterinary Medical Society seems to have been a very interesting one. A paper by Mr. Greaves introduced the subject of doubtful forms of lameness, and the members were able to narrate a number of cases, any one of which might form the subject of a really interesting short article. Mr. Greaves quoted a number of cases reported in veterinary periodicals, and we are proud to say found quite a flattering proportion in the pages of *The Record*. Whilst recognizing the honour done us we cannot refrain from again pointing out to our readers the value of recording their experience. It is never buried. Someone always reads it and compares the opinion or fact with his own observation. Every good case draws another, as our pages have frequently shown—notably in the cases of "intermittent lameness," "cerebral tumours," and "cardiac disease," all of which subjects have been illustrated by repeated contributions in the columns we devote to "Clinical Cases." If we are a little importunate in begging for 'cases" it is because we know they are the most generally interesting and instructive of all subjects treated by us. Some men read nothing else, and for their sakes especially we plead for contributions of any interesting cases met with in practice.

CLINICAL NOTES.

ARSENICAL POISONING IN HORSES.

By "Toxic."

The case I am about to relate is not one in which the horse had been given arsenic for, at least, some weeks. My title, in fact, begs the whole question and is founded upon my own diagnosis, for which I give my reasons. The subject was an eight year old hack-hunter, bought at an auction sale where it formed one of a stud noticeable for their splendid condition and glossy coats.

From the time it entered its new owner's stable, it gradually and slowly lost condition. Its appetite never quite failed, but was always capricious. At exercise it lost its spirit and action, and soon became fatigued. It began to get thin, and was treated with tonics and sundry cattle spices. All sorts of changes in the food were tried, and veterinary advice obtained. Two different practitioners prescribed but no improvement took place. The horse had now been three months in the possession of my client and become very thin and poor, when I was appealed to as a sort of last resort.

I could find no disease. Worms were suspected; but as I was told he had suffered much from ineffectual vermifuges, I put aside that notion and felt puzzled. Listening to the history of the animal, as detailed by the coachman, I was struck by his insistence on the splendid condition which marked the animal at the time of purchase, and it flashed across my mind that possibly this condition was not due merely to good feeding and management, but derived some of its glory from drugs. On this guess I at once started the animal on five grain doses of arsenic daily in his food. The first dozen powders restored the appetite and improved the tone of the horse. Another dozen which were given—one every other day—effected a perfect cure, and the owner glad to see the horse improved, cut short my experiment by sending him to auction for sale without reserve.

Now this case I believe was due to the evil effects of a long course of arsenic, which was suddenly stopped by the change of owners. I have never seen another case like it, but I have heard that such effects do follow a similar cause. Perhaps someone may be able to bear out the truth of my diagnosis by the relation of a similar case, or correct my little theory by suggesting some other explanation of the disease and its rapid recovery.

Perhaps also I might ask for some experience as to the effect produced on horses by continued use of arsenic. Do they get violent colic, and if so is there any diagnostic sign of the illness being due to this drug. Arsenical poisoning in the human subject appears to rest on a very slender diagnostic basis. Any day some of us might be required to give evidence, and it is well that we should be prepared with some positive data, even if two or more go into the witness box to assist counsel to prove two diametrically opposite facts—or fictions.

VETERINARY MEDICAL SOCIETIES.

LINCOLNSHIRE VETERINARY MEDICAL ASSOCIATION.

Meeting at Boston, 15th August. (continued from page 91.)

Mr. Thomas Greaves, F.R.C.V.S., read the following paper:—

LAMENESS IN HORSES.

It is my intention to refer to some of the multifarious causes and phases of lameness in the horse, more especially obscure cases which are more frequently seen than satisfactorily understood; the actual seat of lameness being often difficult to localise, and the cause as difficult to diagnose to our own satisfaction. We all of us meet such cases at one time or another, and it cannot but be interesting and useful to discuss them and become more familiar with these various phases. No man was ever so completely skilled in our profession as not to receive new information from age and experience, inasmuch that we sometimes find ourselves really ignorant of what we thought we understood, and see cause to reject opinions and theories we had hitherto considered sound.

I purpose to take a general survey of the subject, and with this view I shall bring before you a variety of instances of lameness arising from obscure causes, and by directing attention to these cases we may gain knowledge which must be of benefit to us in our daily life. Some of these we can discuss, and also apply ourselves to cases more familiar to us all, and if some useful facts can be gleaned my great desire will be attained.

Percival in his Hippopathology says:—"An observant practitioner will often be able to derive a good deal of information concerning the locality or seat of lameness as the horse stands before him, he sets about inspecting the lame limb and examining it in every part with his hand. Some lamenesses are perceptible to the eye and discernable by the eye better than by the hand; others are detectable by the hand alone, while again there are others that elude detection by either eye or hand, and which can be judged by the action alone aided by the horse's manner of standing. A quick eye judging from the general appearance of a lame horse and from his mode of going, even in the absence of any manifest disease or defect to account for the lameness, will very often discover at once the seat and nature of the lameness."

In *the Transactions of the Veterinary Medical Association* 1842, at page 52, an interesting case is related by Mr. J. Batchelder. This horse would be going sound, but a few minutes' exercise would make him at any and at all times very lame. He was blistered a great many times, fired four times, and also unnerved, all to no purpose; he had fifteen months' rest in a loose box, got sound. He was again conditioned for hunting when he became lame again. In this case there was observed an artery taking a spiral course over the posterior part of the

tendo perforans in company with the connecting nerve, this vessel could be seen at many yards to pulsate inordinately after exertion. The pressure of this vessel upon the tendon had produced a groove on it. The horse was cast, the artery was obliterated by placing a ligature on both ends of it, and in a short time the horse went quite sound, was regularly hunted two seasons, and the lameness did not return.

In *The Veterinarian* for 1847, page 74, Mr. Gabrial relates a case of lameness in the near fore-leg. Blistering, setons, &c. to shoulder were tried, and rest for four months without the least benefit; he was considered incurable and was destroyed. Autopsy showed every part of the limb perfectly healthy, but the liver was only half its natural size, was much increased in density and studded throughout with small cartilaginous bodies which he called asteraides. these bodies were osseous or cartilaginous in their nature and were no doubt the cause of the lameness.

In *The Veterinarian* for 1859, page 591, an interesting case of intermittent lameness in man is related to be caused by obliteration of the iliac artery. The patient was 54 years old; when he walked for a quarter of an hour he felt in the whole of his right leg a weakness accompanied with a numbness, if he continued his walk dull pains with pricking sensation followed in the thigh, leg, and foot, followed by cramp and stiffness of the leg, which he was unable to move, a short rest and these symptoms would entirely disappear; these attacks would recur five or six times in an hour, but never when in repose or stationary. Locomotion alone would always excite a recurrence of the paralytic attack, this was followed by great prostration, ultimately by vomiting blood, syncope, and death; it was then found that a tumour completely obliterated the iliac artery. Several other cases are given in French works of lameness in horses caused by obliteration of the aorta or iliac arteries.

I have brought this case forward because the patient could speak for himself and enlighten us as to what our patients feel and suffer.

In *The Veterinary Record* 1889, Vol. I., page 366, are described three or four very interesting cases of lameness by Mr. Harold Leeney. The cause or nature of the lamenesses was unknown, some of them were lame thirteen or fourteen months, others three years; had various treatment in vain, but by exercise and work the lameness subsided. The writer remarks:—"There is little doubt in my mind that others have had the credit of curing lameness as well as illnesses which they have never diagnosed at all."

In *The Veterinary Record* 1888, Vol. I., page 12, an obscure case of lameness, so well described by Professor F. Smith is both instructive and useful. A horse lame at times for one year and three quarters, cause and nature never known, ultimately recovered. I have seen precisely similar cases after every means has been employed without success ultimately get well. Had these cases died and been carefully examined they would in all probability have been found to be cases of embolism and pressure on certain nerves.

The Veterinary Record 1888, page 146, gives a well described case of Embolism. The horse was sound, fell suddenly lame whilst drawing a brougham six miles. He was so lame that he had to be left in a stable near, he had rest, fomentations, &c., and in a few days he would come out of stable sound but could be rendered intensely lame by a few minutes fast trotting, this occurred again and again. The lameness was always of the same nature. *Coldness of the leg* was the most noticeable feature, would walk on his toe and at each step the fetlock would knuckle over, he would stand with his leg raised two inches from the ground and kept lifting it slightly, but frequently, as if in great pain. Examination per rectum found there was no pulsation of the iliac artery on the affected side. In this case there is no doubt that plugging of the iliac artery existed and was the cause of the lameness.

In *The Veterinary Review* 1863, page 656, is recorded a case of intermittent lameness caused by obliteration of arteries. An entire omnibus horse, aged eighteen years, fell down in his work, was unable to rise or even to move his fore limbs; after a short time he got up and was being led home, but before he had gone fifteen paces lameness showed itself again, and in less than ten minutes his fore limbs trembled violently, became very unsteady, convulsive moving took place in his head and neck, his breathing was laborious, beats of his heart tumultuous, the animal restless, the expression of his countenance haggard, skin bathed in perspiration, two fore limbs dry, and skin of limbs cold; in half an hour all these symptoms would entirely disappear, again and again would these symptoms come on and then disappear; he was put to work for a time and ultimately he died. It was then found that in the two axillary trunks were hard, resistant clots, which were firmly adherent to the arterial walls. The muscles of the limbs were not blanched and presented nothing worthy of note: nerves the same.

In *The Veterinarian* 1875, page 76, Mr. W. C. Ison read a very interesting and useful case of lameness caused by embolism of the iliac arteries, before the Midland Veterinary Medical Association. It was a seven year old bay entire horse, he fell lame in his hind quarters in a strange manner during the two last occasions of his being exercised. The symptoms were great pain and distress, presently these symptoms would subside and he would go quite sound; he could trot, canter and gallop, then would come loss of power in his hind limbs, profuse perspiration; his distress would be intense over his whole body except his hind quarters, which were *cold* and dry, he knuckled over in his fetlock joints, and in the end he died; the iliac arteries were completely plugged with lymph, and the muscles were clay colour.

In *The Veterinary Record* 1889, Vol. I., page 464, Mr. H. Gray relates a very interesting case of Embolism in a cart mare, five years old. This mare was harnessed in a van, had not proceeded 100 yards before she fell lame on her off hind limb, the lameness becoming worse after going a few yards further,

also there was profuse perspiration, roaring, and extreme dyspnœia, the dyspnœia lasted about two hours after resting the mare; after resting six hours she was trotted fifteen minutes before lameness again showed itself: this mare knuckled over at the fetlocks, the limbs became rigid, neither hock nor fetlock being flexed or extended, occasionally dragging the leg like a piece of wood, and the leg became *icy cold*. She evinced pain on the aorta and iliac vessels being pressed per rectum, the right iliac artery was hard and pulseless. This kind of lameness is not very uncommon, it is sometimes called kidney dropt, clinked in the back, bobby-backed, broken backed, &c., &c.

In *The Veterinary Journal* 1888, page 319, again we have another interesting case recorded by Mr. H. Gray, a nag horse nine years old, lame on his near hind limb. This horse was bought in January, worked regularly up to June when he became lame, he was fired on both hocks, and turned out to grass, in a fortnight he could gallop and was not at all lame, worked well until September, when being driven a short distance he lost control over his hind quarters, had colicky pains, was in a state of profuse perspiration, trembling, knuckling over on his hind fetlocks, back arched, groaning with pain, eyes almost starting out of their sockets. These symptoms subsided and he was put to work. In a week's time colicky pains came on again: this time he rested a week, was then led a few yards when he suddenly became lame on his off hind leg, the opposite to the one affected before, he now would catch the limb up spasmodically as in stringhalt. The pulse at the aorta and external iliacs was feeble, and on manipulation a non-resisting body was recognisable; the external iliac was obliterated and solid, hind limb cold, *off hind limb icy cold*, and paralysed: *post-mortem* examination proved the correctness of the diagnosis during life. These cases of lameness are not so rare as some would have us believe.

In *The Veterinary Record* 1889, Vol. I., page 464, there are related several very good cases of lameness by Mr. W. Anderson of Glasgow, strongly resembling, if not identical with, Thrombus or Embolism—pressure upon certain nerves, and interference with the circulation of the blood to the limb.

The Veterinary Record 1889, Vol. I., page 398, has several deeply interesting cases of lameness by Mr. William Willis, some of them undoubted cases of Thrombus or Embolism.

The Veterinary Record 1889, Vol. I., page 433. See cases of paralysis simulating, if not identical with Thrombus or Embolism.

In *The Veterinary Record* 1888, Vol. I., page 26, is a most instructive and valuable case of Azoturia, by Mr. Arthur New. This disease is always attended with sudden lameness, loss of power in the hind extremities, profuse perspiration, and intense suffering: it is a deeply interesting subject to study. Although there has been much controversy it is not yet clear what it is. Hereafter, as scientific development advances it may be found to arise from a species of Embolism and pressure upon certain nerves.

In *The Veterinarian* 1863, page 601, Mr. C. Dickens, of Kimbolton, writes on joint lameness in colts, attributable to lumbricoid worms; he says: "I do not recollect seeing an adult horse affected." He relates a case of a colt, three months old, very lame on his off hind pastern, increased heat, and very sensitive to the touch. In a few days he appeared all right, but in about a week there was extreme swelling with pain and heat over the head of the femur of the same limb. This subsided, and after a while he would become bad again; this happened over and over again, in a little time swelling and pain made their appearance on the left shoulder of the opposite side when he was first lame; in a few days he was convalescent again, then he was attacked with gastric pains, from which he died: *post-mortem* examination showed the duodendum was completely plugged with lumbrici, he calls this a puzzling lameness—such cases are often symptomatic.

In conclusion, I beg to say that during fifty-five years in my profession I have met with a fair share of these interesting and often unsatisfactory cases. The predominating symptoms I have found are: suddenness of attack intense pain, perspiration, knuckling over on the hind fetlocks, and as the disease progresses, *the affected limb deadly cold* and helpless. My treatment has usually been: hot rugs to the limbs, hot salt in bag to loins, cathartics, and rest; sometimes I have bled with much advantage: such treatment has been attended with varied results. I have omitted to go into every-day cases of lameness, finding sufficient matter in the cases I have made extracts from, cases written by experienced and eminent men, who are entitled to our utmost respect, they have recorded them solely for the benefit of our profession, I say all honour to them and to allied workers. They are the redeeming feature in our otherwise apathetic profession. I have written this paper during stolen moments from an active life in my profession. Life at best is but a fragment, the ablest and strongest amongst us cannot always use our opportunities as we would, we may prepare the way for others to sow the seed and to reap from the ground we have furrowed and prepared for them. The promised land in our noble profession is not yet gained, it seems very visionary, there are a great many difficulties surrounding the pathway, numerous deserts will have to be travelled, and red seas crossed before our profession arrives in the land of Canaan.

The paper was received with applause.

Captain Russell said he had listened with very great pleasure to Mr. Greaves' paper on Obscure Lameness, and all would agree such cases were very difficult to manage. They all met with cases of lameness that puzzled them for weeks or it might be for months, and especially was this so with intermittent lameness. He had a horse lately that was sound for three weeks or a month and then for one or two days in the interval was so lame he thought it was putting up a splint. He felt satisfied the lameness was in the foot, and examined it, but found nothing. He had it poulticed and gave the horse some physic. After poulticing two or three days it was something better but afterward fell as bad as ever again. He pared the foot quite near

enough for him but could find nothing. The lameness then seemed to disappear and the horse went to light work but after a week was as bad as ever. Feeling sure there was something in the foot he took the horse to the village smithy and had the foot pared between the frog and the bar until blood was drawn, but nothing could be seen. He took him home and poulticed him. Afterwards he was pottering about with a knife and suddenly struck something hard. What's this he thought? When out shot what he thought to be a stone, but what afterwards proved to be a bony tumour. It came out like a filbert out of its shell. There was a fibrous skin to the tumour surrounding the true growth. The wound healed; the horse was shod, and went to work apparently perfectly sound. The contraction caused by the tumour caused the horse to go lame. (Captain Russell here exhibited the tumour). Continuing, he remarked that as the science of surgery improved, cases of obscure lameness became more rare. He thought as he heard some of the reports given in Mr. Greaves' paper, that some which formerly were thought obscure would now be detected by any veterinary surgeon of twelve months standing. Cases had been mentioned where horses underwent treatment for twenty-one months. Long before that time had passed their client would now send for somebody else. (Laughter). The detection of lameness could not be taught. Some people seemed to have an innate power of discovering at a minutes' notice where a horse was lame. He had heard speak of a man who could shut his eyes and tell by the sound of a horse's trot where he was lame. He could not himself do that, but if he could not detect the lameness in the horse going down and coming back he could not trust himself to do it that day, but saw the horse the next day.

Mr. Dickinson (Boston) then related a case, which years ago was submitted for his father's opinion. The horse had been in the neighbourhood for years and had changed hands again and again. While the horse's lameness was under discussion he turned ill of the colic and died. The speaker made a *post-mortem* examination of the shoulder to find the cause of the lameness and could find nothing until at last he cut through a fibrous substance. Then he found that the horse had three fractured ribs under the scapula, and bony spicules had been thrown out causing the growth of fibrous tissue around. These spicules pricked the shoulder every time the leg was lifted. It was almost an impossibility to elevate the shoulder, which was mechanically fixed. In another case where a gray horse presented symptoms of shoulder lameness, it stood in the stable as if it had fractured the radius or humerus. Afterwards he was surprised to find a festered corn. After the corn was removed and the shoulder fomented the horse still remained with a fixed shoulder. He believed the corn was the exciting cause of melanosis, the horse being predisposed to the ailment. The speaker mentioned that he had a specimen outside in the yard which he wished the members of the Society to inspect.

Mr. Macinder (Peterboro') related a case in which a lady rode a horse hunting, and after a hard day's riding stopped at a gentleman's house for a short time; when she went in the horse was apparently sound, when she came out he was dead lame and could not put his foot to the ground. There was no heat or swelling and nothing to be seen, and so he remained at one time apparently sound, and at another time as though he had broken his leg.

Mr. Gresswell (Peterboro') then gave an instance of obscure lameness in a grey horse that had been under his care. When he arrived to see the horse he was apparently as sound as could be with the exception of the near hind leg. The owner thought he had overpulled himself: he had been lame two or three times during the past fortnight. He told the owner to send for him immediately he fell lame again. Three weeks afterwards the horse again fell lame, this time in the near foreleg and off hind leg, and he came to the conclusion the horse was suffering from melanotic tumour—either of the liver or of some internal organ. A slight aperient was given, and next day the animal seemed better, and the near foreleg was then quite sound. Afterwards the horse died, a *post-mortem* was made and the liver was found to bs about eight stone in weight with melanotic tumour.

A fortnight ago he was sent for to see a horse lame of the near hind leg. The blacksmith had taken off the wrong shoe; the horse was lame in the off hind leg. He got better and went to work. That very morning the horse had been brought to him lame of the near hind leg, with no heat of the foot or anything of the kind. He had not the least doubt it was melanotic tumour forming in the liver.

Mr. F. L. Gooch (Stamford) related a case in which a client of his bought a horse, which had broken down on flexor tendons of near foreleg, to take him backwards and forwards to work. One day the horse came home lame in the off foreleg. He (the speaker) found the fetlock joint swollen to an enormous extent—double the size it ought to be. The owner said he had noticed the horse stumble two or three times and he had very likely trod on a stone. The swelling was reduced by fomentations and rest. He blistered the fetlock joint. Whilst the horse was fastened up he got his leg over his chain, and then he found it certainly exhibited shoulder lameness. He treated him for shoulder lameness but it did not go on very satisfactorily and another Vet. was called in who said it was certainly a case of foot lameness, and a third who was called in said it certainly was shoulder lameness. The mare was sold to a farmer, put to a horse, and is in foal, and apparently as sound as can be. His father in his practice bought a six-year-old horse that turned lame and nothing could be detected. It was fired in the hock, got better, and went to work for twenty years after being fired, when it threw up an enormous spavin.

Mr. Smith (Huntingdon) told of a case that was lame in the shoulder, sometimes better and sometimes worse for three months. One night they found him with a broken leg. The man said he saw him playing in the stable and then found him lame. The

speaker was convinced there was a fracture of the corona. He shot the horse, made a *post-mortem*, and found no disease at all, but the os corona broken into eight pieces.

The PRESIDENT (Mr. Freer) remarked that an excellent paper had brought about a good discussion. Adverting to Embolism he said they as country practitioners were not as likely to see cases as were men in towns. It happened, maybe, two or three times in the course of a lifetime. In diagnosing Embolism a great assistance was examination per rectum—then you could make no mistake—the condition of coldness, and the sudden manner in which the lameness comes on. He had a remarkable case of liver lameness. The horse was lame four or five years, and the liver filled a good sized wheelbarrow after his death. In the case of a four-year-old horse bought at Tattersall's, he was ridden twice and then went unmistakeably lame and could hardly get round his box. The lameness was undoubtedly in the shoulder. The shoulder was fomented, a high-heeled shoe put on, and gradually he got better up to a certain point, but could never get beyond that. He was turned out and grew better, but afterwards went lamer than ever, and was shot. An examination disclosed three holes in the flexor brachii, the head of the humerus being much diseased.

Mr. GOOCH then mentioned a case in which a boy shied a stone and hit the front of the tibia of a horse. He worked for two months, then going home at a jog trot the tibia smashed into a hundred pieces.

Mr. SMITH mentioned a case of fractured femur where the horse worked three weeks before separation took place.

Mr. RUDKIN (Grantham) gave an instance of a horse scarcely lame at all who was turned out and it was found two days afterwards that the radius was fractured.

Mr. GREAVES added that he had known several instances where a horse had worked two or three days before bones that had been fractured had become separated; he supposed that was owing to the strength of the membranes that hold the bones in their place. He thought they ought not therefore to run any risk by allowing horses to resume work or even to be exercised which were suffering from serious injury to the bones of the limbs, until sufficient time had passed to guard against this form of fracture.

The meeting closed with votes of thanks to Mr. Greaves and to Mr. Freer for their papers. The members afterwards dined together.

F. L. GOOCH, *Hon. Sec.*

During the process of packing some bees in a cart at Colliery Farm, Dipton, the bottom fell off one of the hives. The bees came out in scores, and several persons were severely stung, they also attacked the horse which had been yoked to the cart, and the animal bolted. The rest of the hives being disturbed by the jolting hundreds of bees got out, surrounding the occupants of the conveyance and the horse, stinging all in a dreadful manner. Eventually the horse fell to the ground and succumbed the same night to the effect of the stings.

NATIONAL VETERINARY ASSOCIATION.

SOME CONTAGIOUS SKIN DISEASES OF THE HORSE.

By WILLIAM ALSTON EDGAR, F.R.C.V.S., Dartford,
Professor of Veterinary Medicine, College of Agriculture, Downton.

Read at the Meeting in London, July 25th, 1889.

After a brief reference to a disease reported by Mr. R. W. Burke and to one investigated by Professor Axe, the essayist continues:—

Our material for study is thus reduced to those pathological changes induced by the occupation of well-defined organisms from the animal and vegetable kingdoms.

Under this section may be included Ringworm—Scabies—and Phthiriasis.

The present time is especially opportune for the study of Ringworm and Phthiriasis, as both affections have (in my experience) been more than usually prevalent during the late autumn, and spring of present year, and additional interest is awakened in the subject by the large amount of attention this important branch of pathology is now receiving from veterinarians practising in India, where skin diseases appear to be a terrible scourge, and yet, up to the present time, the greatest possible difference of opinion appears to exist as to the cause of the most prevalent and important form. The very interesting paper published in the March number of the *Veterinary Journal* by Mr. Haslam has thrown considerable light upon the malady, and also given an impetus to a further study of the subject.

The disease known in Australia as "Queensland Mange" and "Prurigo" is possibly identical with Indian Ringworm, although from Mr. Stanley's report last year to the Colonial Government it does not appear that he has demonstrated the existence of a fungus.

From a comparative point of view the clinical history of ringworm in England and India is of especial interest.

Mr. Haslam points out that horses are possibly a frequent source of infection in the production of Dhobie's Itch amongst the natives who attend these animals, and in England ringworm is not infrequently transmitted from domesticated animals to men in attendance upon cattle and horses, and conveyed by them to their children without the bearer becoming the actual host, as adults seem to possess peculiar immunity from attacks of Trichophyton tonsurans producing the form affecting the scalp (Tinea tonsurans) although many cases are on record of attendants upon diseased horses becoming affected upon the hands and arms (Tinea circinita). I have seen such cases of transmission myself both from horses and cattle.

This may possibly explain the prevalence of ringworm in rural districts among children at farms, *indirectly* associated with stock, the actual attendants upon the affected animals (more commonly cattle) being the bearers of the spores into the homes without themselves becoming attacked.

Dr. Anderson in his valuable work on skin diseases draws special attention to his interest in the transmission of such affections from the higher animals to man, and quotes several cases of Favus (Achorion Schœnleini) conveyed from mice and cats to children —but in only one case is Trichophyton tonsurans indicated as being conveyed from horses to men quoted, as recorded by Bazin at the St. Louis Hospital, where five or six dragoons became affected from grooming diseased horses. That such transmission is of frequent occurrence is within the experience of many veterinarians, although comparatively few cases are considered worth recording.

As probably not one-fifth of the cases of ringworm occurring amongst the poor in rural districts ever come under the notice of medical men, domesticated animals are but seldom traced as the primary source of infection in outbreaks of this disease attacking children.

The groom in attendance upon the horse shewn in Plate No. 3 became affected on both hands, and his case proved interesting, as on a finger of the left hand the endophyte developed under the nail, and gradually week by week extended almost to the bottom, proving a most intractable case to destroy. A further point was also illustrated, viz.—that agents which readily arrested the disease in the horse (which as will be subsequently shewn was of a very acute form) had no effect in arresting the disease upon the man's hand (which was also of a severe pustular form).

It is, I think, generally accepted that ringworm in the horse, as encountered in England and probably India, is due to the epiphyte Trichophyton tonsurans, as there appears to be no authentic case recorded due to the fungus discovered by Schœnlein—*Achorion Schœnleini*—nor to *Microsporon furfur* producing Tinea versicolor in man.

Much controversy has centered around the identity of these fungi, and when the subject is approached from the physiological side alone there would appear little possible chance of agreement. It is necessary to compare the life history of these epiphytes in the clinical characters of the diseases produced, side by side with their morphology, when there is some definite evidence for agreement.

In order to fully grasp the import of modifications or apparant differences in these diseases, met with in horses in this country and in India, it is necessary to follow the life history of fungi generally and of parasitic fungi in particular.

De Bary in discussing the vegetation of fungi says they require in general the conditions necessary to other plant life, such as light, heat, favourable environment. Every vegetative process having certain limits of temperature, high or low, transgression of such limits in either direction leads to rigidity of growth, and modification of form without destroying life.—Fungi owing to their want of chlorophyll are unable to decompose carbon dioxide and must obtain their carbon in the form of organic carbon previously formed in other bodies: they can take up nitrogen from ammonia compounds as well as nitrates.

Common moulds *flourish* in nutrient solutions which are more or less acid, but grow less well or not at all in neutral or alkaline fluids.

A process of respiration accompanies that of nutrition in the vegetating fungus cell, a free exhalation of oxygen taking place, consequently in taking up their food material they of necessity induce important chemical changes in the tissues in which they develop.

The development of parasitic fungi upon certain animals may depend upon the material composition of the host, and be dependent indirectly upon the nature of its food.

Anatomically Trichophyton tonsurans corresponds to all parasitic fungi in possessing spores (from 7000 to 8000 diameters to an inch) depending upon the soil upon which they develop, *e.g.* man or horse) and a mycelium or thallus, the relative quantity of the former or latter depending upon the situation in which the fungus is produced; in the hair follicles, where there is a comparative absence of light, the spores are in excess, but in the epithelium the filamentous expansions of the spores (mycelia) sometimes predominate.

Parasitic fungi attack by means of these spores, or by germ tubes emitted by the spores, or by the hyphæ developed from the germ tubes.

The spores emit a germ tube by *taking up moisture* independent of the host, and when the tubes or hyphæ proceeding from them come in contact with the host they fasten upon it.

In the development of dermic epiphytes the septate mycelial hyphæ divide transversely into rows or chains of spores capable of germination, resembling those of Oidium lactis.

When these spores are sown in nutrient solutions the germ tubes which are at once emitted develop only mycelia, producing spores in the manner just described.

According to Gravitz, Achorion, Trichophyton and Microsporon are *exactly alike*, differing only in size, which difference is attributed by Gravitz to difference in food supply—he considers the three forms to belong to one and the same species—also that Oidium lactis is identical, he having induced a mild herpitic skin affection by inoculation with this parasite.

Köbner declares trichophyton to be identical with the parasite producing sycosis—microsporon Andonini and with the fungus of pityriasis versicolor (Microsporon furfur); this latter fungus has been transferred by him from man to the domesticated animals and vice versa by sowing the spores.

Many of the parasitic fungi possess a remarkable tendency to attack young animals of different species, e.g. Oidium albicans, the fungus of Aphthæ, affect the mouth, throat, nostrils and skin of face of young infants and lambs. Dr. Anderson says T. tonsurans is rarely if ever met with in adults; this parasite rarely attacks cattle *above* the age of eighteen months—but strangely enough the opposite obtains in horses, as the disease is generally met with only in working horses, old animals often presenting the most severe form of the disease—see Plate No. 3.

Now for clinical evidence as to the analogy of

Trichophyton tonsurans, Achorion Schœnleini, and Microsporon furfur.

Many physicians have supported the opinion of botanists that they are identical, but I know of only two veterinary surgeons who have expressed their opinion as to the identity of trichophyton and achorion, viz., Professor Williams and Mr. Macgillivray.

Inoculation experiments have invariably demonstrated the individuality of Trichophyton tonsurans either in its transmission from man to man or man to animals, or vice versâ, by the reproduction of the species of fungus inoculated and the lesions characteristic of its attack.

Trichophyton has never been known in natural or artificial development to produce Favus or the converse.

Trichophyton tonsurans (in its subdivided forms, Tinea circinata and Tinea tonsurans) is about equally prevalent in the human subject in this country with Favus, the former is exceedingly common in horses and is frequently transmitted from them to man, the latter is unrecorded as affecting horses.

Practically, clinical evidence is of far more value in dealing with questions of this kind in pathology, as it is quite easy to appreciate the difficulties of microscopical morphology when a comparison is made with schizomycetes or fission fungi in artificial cultivation: e.g. the normal and the attenuated form bacillus anthracis may present identical features under the microscope, yet inoculation with the one would mean death, and the other a step in the process of protection: this toning down process in fission fungi by deprivation of oxygen or supplying an unsuitable pabulum in which development may take place is interesting in comparison with the modification produced in ringworm fungus by its being exposed to an unsuitable host: its life is enfeebled, its development not vigorous, in fact it is attenuated and incapable of long sustaining an existence, or of inducing any definite reaction or resistance in the host attacked.

The summer of 1888 being excessively wet, many species of fungi were enabled to develop with especial vigour, for instance Pernospora infestans caused terrible losses in the potato crop, whole fields being attacked within a few weeks.

In my experience ringworm in horses has never so nearly approached an enzoötic form as during the late Autumn and Spring; some cases developed with such exceptional severity that I was led at first to imagine that some new contagious disease had made its appearance.

After careful experimental investigation I was led to the conclusion that the severe and exceptional symptoms were due to the presence of a fungus developed under circumstances calculated to produce the utmost vigor in parasitic life.

Mr. A. J. Haslam, in his interesting paper before mentioned, remarks that ringworm (which he has unkindly christened Tinea furfuracea) is "particularly prevalent at *certain seasons* and stations," indicating that heat and moisture have a favourable effect upon the developement of the fungus.

The severity and prevalence of this disease in India is probably due to the general climatic conditions of that country being most favourable to the vigorous growth of the fungus, coupled with the general insanitary surroundings of horses as compared with those in England.

Semeiology. The objective symptoms vary in different patients, depending somewhat upon the developement of the fungus and the amount of resistance in the tissues, e.g., there may be only a desquamating circle (varying in size generally from $\frac{5}{8}$ of an inch to $1\frac{1}{2}$ inches), the epithelium being thrown off in bran-like scales without any exudation of serum, the colour of such patches of a whiteish grey: the area of the circle is slowly increased in diameter until two or more circles coalesce; when the fungus has invaded and developed in the hair follicles the affected circle becomes denuded of hair, the exfoliation of the epidermis is continuous, but the alopecia is never so marked as in the acute eczematous type, where the exudation of serum produces a well-marked vesication, which quickly coagulates, forming dense crusts, the hairs standing out almost at right angles with the body.

When the serum first coagulates there is often a *yellow* tinge to the crust, which, by exposure, is soon darkened and the grey dust from the skin gives it the well-known grey colour. If the crust is forcibly removed the exposed surface will be moist and a thin secondary coagulation will take place, under ordinary circumstances the crusts are removed either by washing or grooming, leaving a series of bald circles, constituting Alopecia circumscripta—well shown in Plate No 3.

In the acute or enzoötic form of ringworm which has been prevalent, as before remarked, during the past Winter, the disease is generally confined to the hind quarters, chiefly in the region of the tuberosity of ischium and extending downwards to the hocks.

In a few cases it may extend to the flank and perhaps an isolated patch or two on the thorax, but not frequently. It seems remarkable that in cattle the usual seat is the head and neck, but in severe cases it extends all over the body.

In the ordinary squamous form of ringworm in the horse any part of the body may be affected. I have noticed many cases on the sides of face, shoulders, withers, and back, where the saddle or harness might convey the spores to their resting place.

It is remarkable how in the natural extension of the disease the spores seem to readily become fixed by germination, and yet in artificial inoculation if the part is not carefully scraped to obtain a slight serosity the spores will not easily vegetate and the experiment may become negative.

It will be remembered that spores must obtain moisture independently of the host, to commence activity, before becoming attached to it and setting up the chemical changes which with the reaction of the host constitute the symptoms of the occupation.

After inoculation there is what may be called with a little elasticity, the period of incubation; this was pointed out by Mr. Nettleship in his per-

sonal experiment of transmission from the calf (*Veterinarian*, Vol. 43, p. 544, 1870).

He lightly scratched his arm and fixed upon it a portion of fungoid epithelium and hair; it was allowed to remain *in situ* for five days and then removed and replaced for three days longer, when it was totally removed. No change was noticed in the part until nineteen days after the complete removal of the infective material excepting a little occasional itching. On the 19th day a small circular reddened patch was noted slightly raised and roughened, about the size of a split pea, four days later it had extended to about the size of a sixpence, and at the end of another week the circle was as large as a shilling.

In an outbreak during October, 1888, which I will subsequently detail, I inoculated a young mare to satisfy myself that the disease was really ringworm. The seat of inoculation was immediately under the saddle pad.

The skin was shaved and a small centre lightly scraped until the serum started; a fresh crust obtained from the horse in Plate 3 was then put on the denuded surface, and covered by a pad of flannel and the girth buckled over. It was removed after 48 hours. The part appeared slightly swollen but otherwise normal: the pad was replaced and remained on for a week, when it was removed permanently: the experiment was apparently negative, as the original swelling had disappeared and there seemed to be no active fungus. In a fortnight, however, from the date of inoculation an eczematous circle appeared about half an inch in diameter, and a crust quickly formed. This remained untouched for about three weeks, when the circle had gained a diameter of one and a half inches.

The mare was *ungroomed* the whole time and *no other centre* of disease appeared: the fungus was readily destroyed by two applications of ungt. hydrarg. nitrat.

In the outbreak before mentioned three horses out of five in the stable were affected almost simultaneously by what was apparently an acute attack of vesicular eczema, the eruption appearing around the tail in a circle of about nine inches from the anus, *the under hairless portion of the tail and the bald area around anus and perineum were alike attacked*, as shown in Plate 2. The eruption extended down to the hocks and inside the thighs as far forward as the stifle.

The accompanying *œdema was so intense* that the horse in Plate 3, which was the most severe case, could only be moved with difficulty, the extremities being an enormous size, and the skin in all the affected regions was intensely painful on pressure; but the *actual* eczematous patches, which were all more or less circular, when lightly scratched were evidently extremely itchy, as the animal evinced the usual symptoms of pleasure.

There were no constitutional symptoms, appetite and excretions being normal.

The remaining animals in the same stable became affected, as did also one of the attendants, as has been mentioned in the early part of the paper.

A subsequent microscopical examination of the decidual hair and scurf confirmed the diagnosis of ringworm by the presence of Trichophyton tonsurans.

The unusual features of this outbreak were the *apparent* spontaneity in the three animals being attacked, the remarkably acute eczema, and accompanying œdema.

In another outbreak, where the eruption assumed similar characters but without the œdema, the affection spread through the stable of seven horses, but much more slowly, as from the time that the first horse was attacked until the last was well nearly ten weeks had elapsed.

Treatment. Ringworm in the horse in this country is generally eradicated with comparative ease, this does not appear to be always the case in India. In neither country, however, is there the difficulty in effecting destruction of the epiphyte as is so frequently the case in the human subject in the form of Tinea tonsurans of children. This may possibly be due to anatomical differences in the human scalp and equine integument or that in human skin the fungus finds its perfect form of pabulum and can thus better survive exposure to chemical agents. Probably the main difficulty is in reaching the fungus so deeply embedded.

The acute form of the disease as detailed in the foregoing outbreaks is much more easily arrested even than the ordinary form accompanied by squamous skin inflammation, indeed the severity of the reaction in the host almost seems to arrest the progress of the disease. I found an aqueous solution of plumbi-subacetas, two drams to the pint, freely applied over the whole of the affected surface and entire quarters, not only arrested the eczema but effectually destroyed the fungus. In only one case was it necessary to have recourse to a more severe remedy by the ungt. hydrarg. nitratas, which in my experience is the most effectual agent, possibly excepting hydrarg. bichloridum, in destroying ringworm in any animal.

Almost all salts of mercury seem absolutely fatal to the development of skin epiphytes or indeed any kind of fungus, as a solution of perchloride of mercury of a strength of only one in two thousand will prevent the growth of ordinary fungi in cocaine solutions.

Unguentum is to be preferred is a solution in the treatment of ordinary ringworm, as it becomes more definitely fixed to the diseased area and remains in apposition sufficiently long to destroy the fungus. Often one application is sufficient if carefully rubbed into and *aronnd* the circle, great care being taken to extend the ointment beyond the apparently diseased area, as the fungus is always extending on the margins of the circle. If the ungt. hydrarg. nit. is selected it shall only be applied every other day, or too severe secondary inflammation may be set up; it will not generally be necessary to apply the ointment more than three times. In some obstinate cases it is a good plan to scrape the diseased surface with a sufficient firmness to remove all the loose epithelium and then rub on the ointment.

As almost every veterinarian and physician has some chemical agent in which he has more or less

confidence in the treatment of this affection, it is unnecessary to press for the use of any special drug.

Salts of mercury, copper and lead, seem to possess special power in destroying the fungus; also liquor ferri perchlor., iodine tincture, acetic acid, carbolic acid and glycerine, one to three. chysophanic acid ointment has also been much used in human medicine. I notice that Mr. Haslam strongly recommends its use in veterinary practice. but the basis of his recommendation does not seem to be particularly well founded, as he seems to use it alternately with sulphate of copper ointment. which possesses the power of destroying the fungus. Again Goa powder is made up into a thin paste with acetic acid, which agent will also readily destroy trichophyton; so that under such conditions it is not easy to define which drug really affects the cure.

Much credit, however, is due to Mr. Haslam for his able investigations into the pathology of a disease which has appeared in the past to be a skittle-ground in which army veterinary surgeons have contended for supremacy in the art of nomenclature.

No definite lines can well be laid down for the treatment of any individual case of Ringworm, as it is better to consider all the special conditions in operation at the time, and the selection of curative agents will be of secondary importance.

The severity of the attack, its period of duration, the part of body affected, the breed of horse. thickness or sensitiveness of skin and the general environment of animal, will generally guide us in our line of treatment.

During the severe cases under treatment in the past winter, I found it an advantage, in addition to local treatment, to administer, where much subcutaneous œdema existed, salines with small doses of nitrate of potash, followed by a short course of iron and vegetable tonics, or liquor arsenicalis.

Sanitary measures. Immediate isolation of the diseased animals if possible, with clothing, brushes, combs, dusters, and harness should be insisted upon.

All the clothing and other articles which would not suffer damage thereby should be boiled, others disinfected with solution of bichloride of mercury one to five hundred.

The disease is chiefly extended in a stable by grooming, and I am of opinion that it is better to allow the affected animals to *remain undressed during the time they are under active treatment*, or at any rate, special care should be taken not to scratch over the parasitic circles or the spores will be scattered and many centres of infection on the same horse be established.

Beyond the primary points of attack the disease rarely extends if this precaution is adopted.

Any woodwork with a sufficiently roughened surface to fix hair or scurf should be washed with boiling water and bichloride of mercury.

It is, I think, an error to conclude that this disease is *only* found in damp insanitary stabling, where horses are badly fed and imperfectly groomed, as the case mentioned, where seven horses were affected, these animals were under the most favourable conditions possible as to stabling, diet, and attention, there being four stable-men to attend to the stud and everything was conducted in perfect order.

GOVERNMENT VETY. DEPARTMENT.

CONTAGIOUS DISEASES IN ANIMALS.

Reported in Great Britain and Ireland during the week ended August 17th, 1889.

Pleuro-pneumonia.--In Great Britain 15 fresh outbreaks of this disease were reported in the week, 7 of these were in England. in the counties of Essex, Lancaster, Surrey, and York (W.R.). The 8 in Scotland were in the counties of Ayr, Edinburgh, Fife, Forfar, and Perth.

The number of cattle attacked was 40, of which 13 were in England and 27 in Scotland. The number of healthy cattle slaughtered because they had been exposed to infection was 113, 14 of which were in England and 99 in Scotland. In Ireland there was only 1 fresh outbreak of pleuro-pneumenia in the week, and 1 animal attacked in the Navan Union, Co. Meath.

Anthrax.—In England 4 fresh outbreaks of this disease were reported, and 47 animals attacked. No fresh cases of anthrax occurred in other parts of Great Britain or Ireland during the week.

Swine-Fever.—In Great Britain 130 fresh outbreaks of swine-fever were reported, and 562 swine were attacked. Out of nearly 1,000 diseased pigs only 314 were killed, 246 died, 40 recovered, and 358 remained alive at the end of the week. In Ireland 8 fresh outbreaks were reported and 18 swine were attacked.

Glanders and Farcy.--There were 19 fresh outbreaks of glanders reported in the week, 17 of them in London; the other two were in the counties of Kent and Middlesex. Of the 26 horses attacked with glanders during the week 23 were in London. 1 in Kent, 1 in Middlesex, and 1 in Lanarkshire. In England 19 fresh outbreaks of farcy were reported, 18 in London and 1 in Middlesex, 28 horses were attacked with farcy, 27 in London and 1 in Middlesex. No fresh cases of either glanders or farcy occurred in Ireland during the week.

Rabies.—No case of this disease was reported in Great Britain during the week. In Ireland 11 cases were reported, 9 in dogs and 2 in cattle.

EXTRACTS.

ILL EFFECTS OF ANTIPYRIN.

By Thomas Wingrave, M.R.C.S.,Eng.

Owing to the indiscriminate way in which antipyrin is now being administered for an endless variety of diseases, I think that all cases should be recorded in which unpleasant symptoms arise from its administration. The following are brief particulars of a case now under my care.

A young lady aged twenty-one, has been under

my care suffering from chronic ovaritis, associated with intense dysmenorrhœa. In addition to treatment by bromide of ammonia and tincture of gelseminum (which, by the way, were fairly successful in reducing the pain), I had given her some powders consisting of ten grains of antipyrin, one of which was to be taken when the paroxysms became severe. On July 25th last she took one of these (the first); about five minutes afterwards she experienced a very curious sense of heavy weight in the thorax, with a feeling of suffocation, her breathing became hurried and difficult, and there followed almost immediately a loss of power in the left side (the right side was slightly affected); in a few minutes a peculiar, very bright erythema appeared over the whole surface of the body, the patient appearing, as her mother said, "just like a boiled lobster." This rash was accompanied by a sensation of "pins-and-needles" down the left arm and leg; the circulation seemed to be arrested for a little while, as the rash faded to a dull purple. In a few minutes a feeling of collapse set in, accompanied by a profuse cold perspiration, and simultaneously severe vomiting began. In about ten minutes, under the influence of stimulants, all these unpleasant symptoms passed off, and she seemed to have recovered entirely. That the drug was good was shown by the fact that two or three other patients had had some quite recently from the same box, and I can only attribute the symptoms above described to an idiosyncrasy on the part of the patient. If such untoward attacks are to be reported frequently, it seems to me that the action of the drug should be more fully investigated experimentally than seems at present to be the case.—*Lancet.*

A PERFORATION OF THE SEPTUM NASI OCCURING IN CEMENT WORKERS.

By Aleyander G. R. Foulerton,
Resident Assistant Surgeon to St. Bartholomew's Hospital, Chatham.

This perforation of the cartilaginous septum of the nose is not uncommon among workers in cement factories and probably in other trades in which conditions similar to those which I shall describe are prevalent. It occurs as a round opening situated a little above the columna and close to the floor of the nostril. Its size will vary, and beyond a little discharge from the ulcerating edges of the perforation no inconvenience results. Its causation is as follows. The dry cement dust is drawn into the nostrils and accumulates on the hairs in the neighbourhood. This necessitates the frequent use of the little finger in order to clear the passage out. An abrasion of the epithelium at a spot on the septum, against which the nail scrapes as the finger is rotated, becomes, on the course of events which gave rise to it being repeated, an ulcer. The ulceration is after a time followed by perforation. This lesion, which, so far as I am aware, has not been described before, is of some little practical importance, inasmuch as one would be rather apt to attribute to syphilis a perforation of this sort if no obvious cause were to be found.—*Lancet.*

ON MEDICAL PUPILAGE.

The British Medical Journal, referring to Mr. Wheelhouse's address at Leeds, has the following on Pupilage:—

The cure for the lamentable state of practical ignorance is, in Mr. Wheelhouse's opinion, a preliminary pupilage of at least a year's duration to be undergone subsequent to the examination in general education, but prior to the attendance on lectures at a medical school. It is interesting to compare this opinion of a practical and distinguished English surgeon with that of a foreign critic on our system of medical education. Professor Theodor Puschmann, of Vienna, says in his recently published *Geschichte des medicinischen Unterrichts*, "The methods of the Middle Ages have held their own longest in the medical teaching of England. Therefore it happens nowadays, even if seldomer than aforetimes, that medical students becomes apprentices to a practical physician. They remain with him an entire year in order to obtain a superficial acquaintance with those things which life will one day require of them In this method much depends on the individuality of the pupil, and nearly everything on the personality of the teacher. If the student is industrious and gifted, and if the teacher possesses knowledge and pleasure in the performance of his duties, then this year is to the former of inestimable advantage to his later studies. Under other circumstances it is lost time, and serves at the most to provide him with a mechanical routine, which often borders closely on charlatanism." He speaks in similar terms of initial pupilage to a hospital. "There," he says, "the students believe that they will have the opportunity of observing many sick, and hope to receive from the house-physician teaching on the more important phenomena. If they are not deceived in their expectation they gain a certain dexterity and readiness in their intercourse with the sick which is most useful to them in their later clinical and medical practice." In direct opposition, however, to Mr. Wheelhouse's opinion, Professor Puschmann concludes "that in many other directions this mode of entry into the medical profession is objectionable. It misleads the learner into superficiality, because it accustoms him to skim the reality of things, since knowledge and intelligence fail to enable him to reach the bottom. Moreover, the results obtained scarcely repay the sacrifice in time and trouble which they occasion the physician who acts as teacher, and still less justify the inconveniences in the treatment of disease which they bring in their train."

NOTES AND NEWS.

Death from Anthrax.

An inquest was held recently at Guy's Hospital, touching the death of James Pearcey, aged 51, who worked at a hide warehouse, Tooley Street. Mr.

William F. Page, foreman of the hide department, stated the deceased came to him on Thursday evening, and said that the shank of a hide had caught him on the eye. Next day he complained of a swelling about his eye, and witness at once advised him to go to the hospital. At the time deceased received the blow he was engaged in piling up some hides which had come from Penang. Dr. E. Moss, house physician at the hospital, said the deceased attended there on Friday, and was admitted on Sunday. Witness saw him on Tuesday, and found that he had a large broad swelling all over the left side of the face, extending on to the top of the head and a little way into the neck. He got better at first, but afterwards grew weaker and weaker, and died on Wednesday night from syncope. Dr. Moss added that a post-mortem had since been made, and the man was found to be suffering from anthrax. The disease, he said, was likely to arise from anyone being mixed up with foreign hides, as they contained a poison, and if a man had a cut or a scratch about him the bacteria found there way into his blood and multiplied very rapidly. The jury recorded a verdict of death from anthrax.

Clever Inspector.

On Friday, Aug. 5th, a bull or fox terrier entered one of the meadows of the Gables Farm, Shortland, in the occupation of Mr. Lapp. It was evidently suffering from rabies, and attacked and bit one of the cows and her calf, and one of the cows in the stable yard. The coachman killed the dog. A veterinary surgeon was sent for, who destroyed the animal that was bitten. The Police Sanitary Inspector performed a post-mortem examination on the dog killed by the coachman, and decided that it had undoubtedly suffered from rabies.

The Veterinary School in Stuttgart.

The students of the Veterinary School in Stuttgart have unanimously resolved not to attend the school next winter, because the hope that it would be raised to the rank of an academy (Hochschule) on the occasion of the recent celebration of the twenty-fifth anniversary of the King of Würtemberg's accession has not been fulfilled.

Bitten by a Hydrophobia Patient.

The Bucharest correspondent of a news agency sends particulars of a painful occurrence which has taken place at Kustendjie, where a soldier was under treatment in the military hospital for hydrophobia. The patient, it is stated, bit through the hand of the surgeon attending him so severely and held on with so much force that the soldiers present had the utmost difficulty in freeing the surgeon, who has gone to Bucharest to be treated at the Institute for Bacteriology. The wound is severe, and the case is being watched with interest by the medical world.

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WEST OF SCOTLAND V.M.A.
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